Occupational and Environmental Medicine

VOLUME 55

Editor: Anne Cockcroft (United Kingdom)
Deputy Editor: T C Aw (United Kingdom)
Technical Editor: Judith Haynes
Editorial Assistant: Frances Reid
Editorial Board:
F J H Van Dijk (Holland)
D Heederik (Holland)
J Jeyaratnam (Singapore)
G Lemasters (United States)
G Liss (Canada)
R L Maynard (United Kingdom)
R McNamee (United Kingdom)
J Myers (South Africa)
B Nemery (Belgium)
M J Nieuwenhuijsen (United Kingdom)
T Okubo (Japan)
H Roels (Belgium)
M Sim (Australia)
D C Snashall (United Kingdom)
G Thériault (Canada)
K M Venables (United Kingdom)
J-D Wang (Taiwan)
P Westerholm (Sweden)
Editor, *British Medical Journal*

BMJ Publishing Group

VOLUME 55 · CONTENTS

No 1 JANUARY 1998

Page **Review**

1 Cancer risk in the rubber industry: a review of the recent epidemiological evidence *Manolis Kogevinas, Maria Sala, Paolo Boffetta, Neely Kazerouni, Hans Kromhout, Sheila Hoar-Zahm*

Papers

13 Acute effects of ozone on pulmonary function of cyclists receiving antioxidant supplements *Linda Grievink, Saskia M A Jansen, Pieter van't Veer, Bert Brunekreef*

18 Birthweight of term infants and maternal occupation in a prospective cohort of pregnat women *Alexandra Farrow, Katherine M Shea, Ruth E Little, and the ALSPAC study team*

24 Time to pregnancy among the wives of men exposed to organic solvents *Markku Sallmén, Marja-Liisa Lindbohm, Ahti Anttila, Pentti Kyyrönen, Helena Taskinen, Erkki Nykyri, Kari Hemminki*

31 Association of petrochemical exposure with spontaneous abortion *Xiping Xu, Sung-Il Cho, Mary Samuel, Liangya You, Shangcong Cui, Yinmin Huang, Guohong Ma, Chantana Padungtod, Lucille Pothier, Tianhua Niu, David Christiani, Thomas Smith, Louise Ryan, Lihua Wang*

37 Assessment of exposure to solvents among hairdressers: reliability of a classification scheme and questionnaire *W M Kersemaekers, N Verheijen, H Kromhout, N Roeleveld, G A Zielhuis*

43 Breast cancer risk and lifetime occupational history: employment in professional and managerial occupations *Sandra A Petralia, John E Vena, Jo L Freudenheim, James R Marshall, Arthur Michalek, John Brasure, Mya Swanson, Saxon Graham*

49 Female seafarers adopt the high risk lifestyle of male seafarers *Henrik L Hansen, Janne Jensen*

52 Risk of silicosis in coalworkers exposed to unusual concentrations of respirable quartz *Brian G Miller, Suzanne Hagen, Richard G Love, Colin A Soutar, Hilary A Cowie, Malcolm W Kidd, Alastair Robertson*

59 Occupational exposure to solvents and hairy cell leukaemia *Jacqueline Clavel, Laurence Mandereau, François Conso, Jean-Claude Limasset, Isabelle Pourmir, Georges Flandrin, Denis Hémon*

65 Update of the morbidity experience of employees potentially exposed to chlorpyrifos *Carol J Burns, Janice B Cartmill, Brian S Powers, Marcia K Lee*

71 **Reviewers**

No 2 FEBRUARY 1998

Page **Papers**

73 Dutch monitor on stress and physical load: risk factors, consequences, and preventive action *Irene L D Houtman, Anneke Goudswaard, Steven Dhondt, Maarten P van der Grinten, Vincent H Hildebrandt, Egbert G T van der Poel*

84 Psychosocial and physical risk factors associated with low back pain: a 24 year follow up among women and men in a broad range of occupations *Carina O Bildt Thorbjörnsson, Lars Alfredsson, Kerstin Fredriksson, Max Köster, Hans Michélsen, Eva Vingård, Margareta Torgén, Åsa Kilbom*

91 Socioeconomic and sex differentials in reason for sickness absence from the Whitehall II study *A Feeney, F North, J Head, R Canner, M Marmot*

99 Are long working hours and shiftwork risk factors for subfecundity? A study among couples from southern Thailand *Pitchaya Tuntiseranee, Jorn Olsen, Alan Geater, Ounjai Kor-anantakul*

106 Adult myeloid leukaemia, geology, and domestic exposure to radon and γ radiation: a case control study in central Italy *Francesco Forastiere, Alessandra Sperati, Giovanni Cherubini, Maria Miceli, Annibale Biggeri, Olav Axelson*

111 Mortality from lung cancer and population risk attributable to asbestos in an asbestos cement manufacturing town in Italy *Corrado Magnani, Massimo Leporati*

115 Increased risk of lung cancer among different types of professional drivers in Denmark *Johnni Hansen, Ole Raachou-Nielsen, Jørgen H Olsen*

119 Stepwise health surveillance for bronchial irritability syndrom in workers at risk of occupational respiratory disease *Wendel K Post, Katherine M Venables, David Ross, Paul Cullinan, Dick Heederik, Alex Burdorf*

126 Dioxin exposure and non-malignant health effects: a mortality study *Angela C Pesatori, Carlo Zochetti, Stefano Guercilena, Dario Consonni, Davide Turrini, Pier Alberto Bertazzi*

132 Influence of biological and analytical variation on urine measurements for monitoring exposure to cadmium *H J Mason, N R Williams, M G Morgan, A J Stevenson, S Armitage*

Short Reports

138 Urinary excretion of platinum from platinum industry workers *Rudolf Schierl, Hans-Georg Fries, Christian van de Weyer, Günter Fruhmann*

141 Diver's hand: a skin disorder common in occupational saturation diving *Catrine Ahlén, Ole Jan Iversen, Jan Risberg, Gunnar Volden, Harald Aarset*

Correspondence

144 Inhalation of ammonium nitrate fuel oil explosive (ANFO) *A Michael Donoghue*

144 Effects of acute exposure to ultrahigh radiofrequency radiation on three antenna engineers *B Hocking, C J Schilling*

144 **Notices**

No 3 MARCH 1998

Page **Papers**

145 Human effect monitoring in cases of occupational exposure to antineoplastic drugs: a method comparison *Sebastian Kevekordes, Thomas W Gebel, Martin Helkwig, Wendelin Dames, Hartmut Dunkelberg*

150 Chronic bronchitis, work related respiratory sympotms, and pulmonary function in welders in New Zealand *Lisa M Bradshaw, David Fishwick, Tania Slater, Neil Pearce*

155 Tyler asbestos workers: mortality experience in a cohort exposed to amosite *Jeffrey L Levin, Jerry W McLarty, George A Hurst, Angela N Smith, Arthur L Frank*

161 Mortality and cancer incidence of aircraft maintenance workers exposed to trichloroethylene and other organic solvents and chemicals: extended follow up *Aaron Blair, Patricia Hartge, Patricia A Stewart, Mary McAdams, Jay Lubin*

172 Epicondylitis among cooks in nursery schools *Yuichiro Ono, Ryogo Nakamura, Midori Shimaoka, Shuichi Hiruta, Yoji Hattori, Gaku Ichihara, Michichiro Kamijima, Yasuhiro Takeuchhi*

180 Carpal tunnel syndrome and work organisation in repetitive work: a cross sectional study in France *A Leclerc, P Franchi, M F Christofari, B Delemotte, P Mereau, C Teyssier-Cotte, A Touranchet, and the Study Group on Repetitive Work*

188 Epidemology of sick building syndrome and its associated risk factors in Singapore *P L Ooi, K T Goh, M H Phoon, S C Foo, H M Yap*

194 Use of a crop and job specific exposure matrix for retrospective assessment of long term exposure in studies of chronic neurotoxic effects of agrichemicals *Leslie London, Jonathon E Myers*

202 Occupational exposure to lead and neuropsychological dysfunction *Helena Hänninen, Antero Aitio, Tero Kovala, Ritva Luukkonen, Esko Matikainen, Tarmo Mannelin, Jari Erkkilä, Vesa Riihimäki*

Conference report

210 Role of human neurobehavioural tests in regulatory activity on chemicals *Richard Stephens, Penny Barker*

Correspondence

215 Occupational asthma in New Zealanders: a population based study *Donald K Milton; David Fishwick, Neil Pearce, Wendyl D'Sousa, Simon Lewis, Ian Town, Rob Armstrong, Julian Crane*

216 **Notices, Book review**

No 4 APRIL 1998

Page **Review**

217 Work shift duration: a review comparing eight hour and 12 hour shift systems *Lawrence Smith, Simon Folkard, Phil Tucker, Ian Macdonald*

Papers

230 Mortality from cancer and other causes of death among synthetic rubber workers *Nalini Sathiakumar, Elizabeth Delzell, Mary Hovinga, Maurizio Macaluso, Jim A Julian, Rodney Larson, Philip Cole, David C F Muir*

236 Lung cancer mortality in nickel/chromium platers, 1946-95 *Tom Sorahan, Denys C L Burges, Linda Hamilton, J Malcolm Harrington*

243 Silica, compensated silicosis, and lung cancer in Western Australian goldminers *Nicholas H de Klerk, A William Musk*

249 Evaluation of personal exposure to monoaromatic hydrocarbons *Pei-Ling Leung, Roy M Harrison*

258 Respiratory symptoms and bronchial responsiveness in lifeguards exposed to nitrogen trichloride in indoor swimming pools *N Massin, A B Bohadana, P Wild, M Héry, J P Toamain, G Hubert*

264 Surveillance case definitions for work related upper limb pain syndromes *J M Harrington, J T Carter, L Birrell, D Gompertz*

272 Prevalence odds ratio or prevalence ratio in the analysis of cross sectional data: what is to be done? *Mary Lou Thompson, J E Myers, D Kriebel*

278 Time to pregancy and exposure to pesticides in Danish farmers *Solveig Brixen Larsen, Michael Joffe, Jens Peter Bonde, and the ASCLEPIOS study group*

Short report

284 Maternal occupation in the leather industry and selected congenital malformations *Ana M Garcia, Tony Fletcher*

Correspondence

287 Respiratory health effects of opencast coalmining: a cross sectional study of current workers *Daniel E Banks, Mei-Lin Wang, N Leroy Lapp; Brian G Miller, Colin A Soutar*

Correction

288 Pulsed electromagnetic fields and cancer *B Hocking*

288 **Book review**

No 5 MAY 1998

Page **Methodology**

291 Assessment of mechanical exposure in ergonomic epidemiology *Allard, J van der Beek, Monique H W Frings-Dresen*

300 Comprehensive evaluation of long term trends in occupational exposure: part 1. Description of the database *Elaine Symanski, Lawrence L Kupper, Stephen M Rappaport*

310 Comprehensive evaluation of long term trends in occupational exposure: part 2. Predictive models for declining exposures *Elaine Symanski, Lawrence L Kupper, Irva Hertz-Picciotto, Stephen M Rappaport*

317 Workplace risk factors for cancer in the German rubber industry: part 1. Mortality from respiratory cancers *Stephen K Weiland, Kurt Straif, Lloyd Chambless, Barbara Werner, Kenneth A Mundt, Annette Bucher, Thomas Birk, Ulrich Keil*

325 Workplace risk factors for cancer in the German rubber industry: part 2. Mortality from non-respiratory cancers *Kurt Straif, Stephen K Weiland, Barbara Werner, Lloyd Chambless, Kenneth A Mundt, Ulrich Keil*

333 Residential wire codes: reproducibility and relation with measured magnetic fields *Robert E Tarone, William T Kaune, Martha S Linet, Elizabeth E Hatch, Ruth A Kleinerman, Leslie L Robison, John D Boice Jr, Sholom Wacholder*

340 Evaluating the effectiveness of gloves in reducing the hazards of hand-transmitted vibration *Michael J Griffin*

349 Decline in lung function related to exposure and selection processes among workers in the grain processing and animal feed industry *Wendel Post, Dick Heederik, Remco Houba*

Short report

356 Changes in airway function and bronchial responsiveness after acute occupational exposure to chlorine leading to treatment in a first aid unit *Christophe Leroyer, Jean-Luc Malo, Claire Infante-Rivard, Jean-Guy Dufour, Denyse Gautrin*

Correspondence

360 Acute myeloid and monocytic leukaemia and benzene exposure in petroleum distribution workers in the United Kingdom *Otto Wong, Gerhard K Raabe; Lesley Rushton, Helena Romaniuk*

361 Occupational asthma due to amylase *Michael L H Flindt; David J Hendrick*

361 Dynamite plunger plots should not be used *Aurelio Tobia*

362 **Notices**

No 6 JUNE 1998

Page **Obituary**

363 Richard Selwyn Francis Schilling *P J Lawther*

Review

364 Male reporductive toxicity of lead in animals and humans *Pietro Apostoli, Philippe Kiss, Stefano Porru, Jens Peter Bonde, Michel Vanhoorne, and the ASCLEPIOS study group*

Papers

375 Development and evaluation of a quality assessment instrument for occupational physicians *Willeke E van der Weide, Jos H A M Verbeek, Frnak J H van Dijk, Carel T J Hulshof*

383 Quartz exposures and severe silicosis: a role for the hilar nodes *Anthony Seaton, John W Cherrie*

387 Lung and bladder cancer in a Norwegian municipality with iron and steel producing industry: population based case-control studies *Tom K Grimsrud, Hilde Langseth, Anders Engeland, Aage Andersen*

393 Occupational exposures and squamous cell carcinoma of the oral cavity, pharynx, larynx, and oesophagus: a case-control study in Sweden *Per Gustavsson, Robert Jakobsson, Hemming Johansson, Freddi Lewin, Staffan Norell, Lars-Erik Rutkvist*

401 Preventive measures reduce exposure to polycyclic aromatic hydrocarbons at a graphite electrode plant *Marco dell'Omo, Giacomo Muzi, Giancarlo Marchionna, Luca Latini, Patrizia Carrieri, Piero Paolemili, Giuseppe Abbritti*

407 Work stress and recovery measured by urinary catecholamines and cortisol excretion in long distance coach drivers *Judith K Sluiter, Allard J van der Beek, Monique H W Frings-Dresen*

414 Ergonomic stressors and upper extremity disorders in vehicle manufacturing: cross sectional exposure-response trends *Laura Punnett*

421 Prevalence or work related musculoskeletal disorders in active union carpenters *G K Lemasters, M R Atterbury, A D Booth-Jones, A Bhattacharya, N Ollila-Glenn, C Forrester, L Forst*

428 Indoor nitrogen dioxide in homes along trunk roads with heavy traffic *Masayuki Shima, Motoaki Adachi*

Correspondence

434 Occupational asthma due to porcine pancreatice amylase *P G Blain, E Loughney, T C Aiken, R Ward, D J Hendrick, E T Peel*

434 **Notice**

No 7 JULY 1998

Page **Papers**

435 Cadmium may be a risk factor for osteoporosis *Lars Järup, Tobias Alfvén, Bodil Persson, Göran Toss, Carl Gustaf Elinder*

440 α-1-Microglobulin: epidemiological indicator for tubular dysfunction induced by cadmium? *Tanja Pless-Mulloli, Michael Boettcher, Markus Steiner, Jürgen Berger*

446 Measurement of vitamin D_3 metabolites in smelter workers exposed to lead and cadmium *S R Chalkley, J Richmond, D Barltrop*

453 Lead absorption and renal dysfunction in a South African battery factory *Rodney Ehrlich, Thomas Robins, Esme' Jordaan, Shirley Miller, Simphiwe Mbuli, Paul Selby, Sinclair Wynchank, Anthony Cantrell, Marc De Broe, Patrick D'Haese, Andrew Todd, Philip Landrigan*

461 Urinary 1-hydroxypyrene concentrations in coke oven workers *Ming-Tsang Wu, I-Fang Mao, Chi-Kung Ho, David Wypij, Pey-Ling Lu, Thomas J Smith, Mei-Lien Chen, David C Christiani*

468 Cross sectional observation of the effects of carbon disulphide on arteriosclerosis in rayon manufacturing workers *Kazuyuki Omae, Toru Takebayashi, Tetsuo Nomiyama, Chizuru Ishizuka, Hiroshi Nakashima, Takamoto Uemura, Shigeru Tanaka, Tsuneyuki Yamauchi, Toshihiro O'Uchi, Yasushi Horichi, Haruhiko Sakurai*

473 Cross sectional observation of the effects of carbon disulphide on the nervous system, endocrine system, and subjective symptoms in rayon manufacturing workers *Toru Takebayashi, Kazuyuki Omae, Chizuru Ishizuka, Tetsuo Nomiyama, Haruhiko Sakurai*

480 Identification of infectious *Pseudomonas aeruginosa* strains in an occupational saturation diving environment *Catrine Ahlén, Lise Helen Mandal, Ole Jan Iversen*

485 Trends in rates of occupational fatal injuries in the United States (1983-92) *A John Bailer, Leslie T Stayner, Nancy A Stout, Laurence D Reed, Stephen J Gilbert*

490 Prognostic factors for musculoskeletal sickness absence and return to work among welders and metal workers *Alex Burdorf, Bart Naaktgeboren, Wendel Post*

496 Risk of pulmonary tuberculosis relative to silicosis and exposure to silica dust in South African gold miners *Eva Hnizdo, Jill Murray*

Correspondence

503 Mortality of Dutch coal miners in relation to pneumoconiosis, chronic obstructive pulmonary disease, and lung function *Bengt Sjögren*

503 Bronchial reactions to exposure to welding fumes *David Fishwick, Andrew Curran, Lisa Bradshaw, Tania Bradshaw, Neil Pearce, Moira Chan-Yeung, Gustavo Contreras*

503 Heavy physical work and occurrence of sciatic pain: need for Poisson log linear models or for better data? *Annette Leclerc, Alice Gueguen, Markku Nurminen*

506 **Notices, Book reviews**

No 8 AUGUST 1998

Page **Papers**

507 Neurotoxicity in young adults 20 years after childhood exposure to lead: the Bunker Hill experience *Lynette Stokes, Richard Letz, Fredric Gerr, Margarette Kolczak, Fiona E McNeill, David R Chettle, Wendy E Kaye*

517 Leukaemia, lymphoma, and multiple myeloma in seamen on tankers *Ralph I Nilsson, Rolf Nordlinder, Lars-Gunnar Hörte, Bengt Järvholm*

522 Agricultural use of DDT and risk of non-Hodgkin's lymphoma: pooled analysis of three case-control studies in the United States *Dalsu Baris, Shelia Hoar Zahm, Kenneth P Cantor, Aaron Blair*

528 Increased morbidity odds ratio of primary liver cancer and cirrhosis of the liver among vinyl chloride monomer workers *Chung-Li Du, Jung-Der Wang*

533 Relations between occupational exposure to coal mine dusts, erythrocyte catalase and Cu++/Zn++ superoxide dismutase activities, and the severity of coal workers' pneumoconiosis *Rachel Nadif, Eve Bourghard, Martine Dusch, Pierre Bernadac, Jean-Pierre Bertrand, Jean-Marie Mur, Quang-Thieu Pham*

541 Association between hospital emergency visits for asthma and air pollution in Valencia, Spain *José María Tenías, Ferran Ballester, María Luisa Rivera*

548 Job strain, social support at work, and incidence of myocardial infarction *Niklas Hammar, Lars Alfredsson, Jeffrey V Johnson*

554 Comparison between two programmes for reducing the levels of risk indicators of heart diseases among male professional drivers *Gudrun E Hedberg, Lisbeth Wikström-Frisén, Urban Janlert*

562 Assessment of bibliographic databases performance in information retrieval for occupational and environmental toxicology *Jean-Francois Gehanno, Christophe Paris, Benoit Thirion, Jean-Francois Caillard*

567 Risk of hepatitis A infection in sewage workers *Ruairi Brugha, Julia Heptonstall, Paddy Farrington, Sheila Andren, Keith Perry, John Parry*

Short reports

570 Exposure to blood borne viruses and the hepatitis B vaccination status among healthcare workers in inner London *P Gyawali, P S Rice, A J Tilzey*

573 Chinese herbal medicine, sibship, and blood lead in children *Tsun-Jen Cheng, Ruey-Hong Wong, Yi-Ping Lin, Yaw-Huei Hwang, Ji-Jen Horng, Jung-Der Wang*

Correspondence

577 Prevalence of occupational lung disease among Botswana men formerly employed in the South African mining industry *M A C La Grange; N W White, K M Gyi, T Steen*

578 **Book review**

No 9 SEPTEMBER 1998

Page **Papers**

579 Correlation between the prevalence of certain fungi and sick building syndrome *J Danny Cooley, Wing C Wong, Cynthia A Jumper, David C Straus*

585 Survey of injuries among West End performers *Randolph W Evans, Richard I Evans, Scott Carvajal*

594 Cancer incidence in urban bus drivers and tramway employees: a retrospective cohort study *Helle Soll-Johanning, Elsa Bach, Jørgen H Olsen, Finn Tüchsen*

599 Case-control study of occupational exposures and male breast cancer *P Cocco, L Figgs, M Dosemeci, R Hayes, M S Linet, A W Hsing*

605 Air pollution and daily mortality in Rome, Italy *P Michelozzi, F Forastiere, D Fusco, C A Perucci, B Ostro, C Ancona, G Pallotti*

611 Small area study of mortality among people living near multiple sources of air pollution *P Michelozzi, D Fusco, F Forastiere, C Ancona, V Dell'Orco, C A Perucci*

616 Health survey of former workers in a Norwegian coke plant: part 1. Estimation of historical exposures *P R Romundstad, A Rønneberg, H L Læira, T Bye*

622 Health survey of former workers in a Norwegian coke plant: part 2. Cancer incidence and cause specific mortality *Tore Bye, Pål R Romundstad, Alf Rønneberg, Bjørn Hilt*

627 Occupational exposures to solvents and aluminium and estimated risk of Alzheimer's disease *Amy B Graves, Daniel Rosner, Diana Echeverria, James A Mortimer, Eric B Larson*

634 Best estimate of the magnitude of mortality due to occupational exposure to hazardous substances *Stephen Morrell, Charles Kerr, Tim Driscoll, Richard Taylor, Glenn Salkeld, Stephen Corbett*

Short report

642 Myocardial infarction in male and female dominated occupations *Piroska Östlin, Lars Alfredsson, Niklas Hammar, Christina Reuterwall*

Correspondence

645 Exposure to asphalt or bitumen fume and renal disease *David Douglas, Gavin Carney, Ian D Dittmer, Alison J Armitage*

646 Cancer risk in the rubber industry: a review of recent epidemiological evidence *J K Straughan, Manolis Kogevinas, Maria Sala, Paolo Boffetta, Shelia Hoar-Zahm, Neely Kazerouni, Hans Kromhout*

647 Inhalation of ammonium nitrate fuel oil explosive (ANFO): and possible concomitant exposure *Per Søstrand*

647 Occupational asthma due to amylase *Michael L H Flindt*

647 Health of children born to medical radiographers *E Janet Tawn*

648 **Correction, Book reviews**

No 10 OCTOBER 1998

Page **Methodology**

651 Effect of measurement error on epidemiological studies of environmental and occupational exposures *Ben G Armstrong*

Papers

657 Association between exposure to crystalline silica and risk of sarcoidosis *Vilhjulmur Rafnsson, Olafur Ingimarsson, Ingimar Hjulmarsson, Holmfridur Gunnarsdottir*

661 Impact of exposure to insulation wool on lung function and cough in Swedish construction workers *M Albin, G Engholm, N Hallin, L Hagmar*

668 Prevalence and predictors of work related respiratory symptoms in workers exposed to organic dusts *J C G Simpson, R Mcl Niven, C A C Pickering, A M Fletcher, L A Oldham, H M Francis*

673 Change in obstructive pulmonary function as a result of cumulative exposure to welding fumes as determined by magnetopneumography in Japanese arc welders *Toshio Nakadate, Yoshiharu Aizawa, Takashi Yagami, Yi-Qin Zheg, Makoto Kotani, Kouichi Ishiwata*

678 Lung health among plumbers and pipefitters in Edmonton, Alberta *Patrick A Hessel, Lyle S Melenka, Dennis Michaelchuk, F Alex Herbert, Robert L Cowie*

684 Risk factors for sensitisation and respiratory symptoms among workers exposed to acid anhydrides: a cohort study *R D Barker, M J A van Tongeren, J M Harris, K Gardiner, K M Venables, A J Newman Taylor*

692 Retrospective exposure assessment for a cohort study into respiratory effects of acid anhydrides *M J A van Tongeren, R D Barker, K Gardiner, J M Harris, K M Venables, J M Harrington, A J Newman Taylor*

697 Urban air pollution and cardiopulmonary ill health: a 14.5 year time series study *G J Prescott, G R Cohen, R A Elton, F G R Fowkes, R M Agius*

705 Urinary excretion of phenol, catechol, hydroquinone, and muconic acid by workers occupationally exposed to benzene *N Rothman, W E Bechtold, S-N Yin, M Dosemeci, G-L Li, Y-Z Wang, W C Griffith, M T Smith, R B Hayes*

712 Dementia and occupational exposure to organic solvents *Keith Palmer, Hazel Inskip, Christopher Martyn, David Coggon*

716 Symptoms of hand-arm vibration syndrome in gas distribution operatives *Keith Palmer, Granville Crane, Hazel Inskip*

722 **Book reviews**

No 11 NOVEMBER 1998 Page **Papers**

723 An epidemiological study of acute carbon monoxide poisoning in the West Midlands *Richard C Wilson, Patrick J Saunders, Gillian Smith*

729 Stress in farmers: a survey of farmers in England and Wales *Sue Simkin, Keith Hawton, Joan Fagg, Aslög Malmberg*

735 Psychosocial factors at work and sickness absence in the Gazel cohort: a prospective study *Isabelle Niedhammer, Isabelle Bugel, Marcel Goldberg, Annette Leclerc, Alice Guéguen*

742 Immunological markers among workers exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin *William Halperin, Robert Vogt, Marie Haring Sweeney, George Shopp, Marilyn Fingerhut, Martin Petersen*

750 Occurrence of self reported hand eczema in Swedish bakers *Jonas Brisman, Birgitta Meding, Bengt Järvholm*

755 Mortality and cancer incidence in Swedish battery workers exposed to cadmium and nickel *Lars Järup, Tom Bellander, Christer Hogstedt, Gunnar Spång*

760 Estimation of the past and future burden of mortality from mesothelioma in France *Anabelle Gilg Soit Ilg, Jean Bignon, Alain-Jacques Valleron*

766 Lung cancer and mesothelioma in the pleura and peritoneum among Swedish insulation workers *Bengt Järvholm, Åke Sandén*

771 Road traffic and adverse respiratory effects in children *Giovannino Ciccone, Francesco Forastiere, Nera Agabiti, Annibale Biggeri, Luigi Bisanti, Elisabetta Chellini, Giuseppe Corbo, Valerio Dell'Orco, Paola Dalmasso, Tadeja Fatur Volante, Claudia Galassi, Silvano Piffer, Elisabetta Renzoni, Franca Rusconi, Piersante Sestini, Giovanni Viegi, and the SIDRIA collaborative group*

779 Crystalline silica and risk of lung cancer in the potteries *N M Cherry, G L Burgess, S Turner, J C McDonald*

786 Asthma-like symptoms, atopy, and bronchial responsiveness in furniture workers *Donatella Talini, Andrea Monteverdi, Alessandra Benvenuti, Marina Petrozzino, Francesco Di Pede, Maria Lemmi, Anna Carletti, Paola Macchioni, Nadi Serretti, Giovanni Viegi, Pierluigi Paggiaro*

Short report

792 Does the US Navy attract young women who smoke? *Kathleen B Weaver, Susan I Woodruff, Terry L Conway, Christine C Edwards, Shu-Hong Zhu, John P Elder*

No 12 DECEMBER 1998 Page **Reviews**

795 Proposal for the assessment of quantitative dermal exposure limits in occupational environments: part 1. Development of a concept to derive a quantitative dermal occupational exposure limit *P M J Bos, D H Brouwer, H Stevenson, P J Boogaard, W L A M de Kort, J J van Hemmen*

805 Proposal for the assessment of quantitative dermal exposure limits in occupational environments: part 2. Feasibility study for application in an exposure scenario for MDA by two different dermal exposure sampling methods *D H Brouwer, L Hoogendoorn, P M J Bos, P J Boogaard, J J van Hemmen*

Papers

812 Does living near a constellation of petrochemical, steel, and other industries impair health? *R S Bhopal, S Moffatt, T Pless-Mulloli, P R Phillimore, C Foy, C E Dunn, J A Tate*

823 Evaluation of chronic respiratory effects in the potato processing industry: indications of a healthy worker effect? *Jan-Paul Zock, Dick Heederik, Gert Doekes*

828 Smoking and musculoskeletal disorders in the metal industry: a prospective study *Päivi Leino-Arjas*

834 Respiratory health of cigar factory workers *Jukka Uitti, Henrik Nordman, Matti S Huuskonen, Pekka Roto, Kaj Husman, Marjut Reiman*

840 Asbestos lung burden and asbestosis after occupational and environmental exposure in an asbestos cement manufacturing area: a necropsy study *Corrado Magnani, Franco Mollo, Luigi Paoletti, Donata Bellis, Paolo Bernardi, Piergiacomo Betta, Mario Botta, Mario Falchi, Cristiana Ivaldi, Mansueto Pavesi*

847 **Book reviews**

848 **Index**

Contents